**Atty. Docket No: 077281/0104**

*In re* patent application of

DODO, HORTENSE W. *et al.*

Serial No. 09/715,036

Filed: November 20, 2000

For: DOWN-REGULATION AND SILENCING OF ALLERGEN GENES IN
TRANSGENIC PEANUT SEEDS

STATEMENT TO SUPPORT FILING AND SUBMISSION IN
ACCORDANCE WITH 37 C.F.R. §§ 1.821-1.825

Assistant Commissioner for Patents
Washington, D.C. 20231
**Box SEQUENCE**

Sir:

In connection with a Sequence Listing submitted concurrently herewith, the undersigned hereby states that:

1.     the submission, filed herewith in accordance with 37 C.F.R. § 1.821(g), does not include new matter;

2.     the content of the attached paper copy and the attached computer readable copy of the Sequence Listing, submitted in accordance with 37 C.F.R. § 1.821(c) and (e), respectively, are the same; and

3.     all statements made herein of their own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United
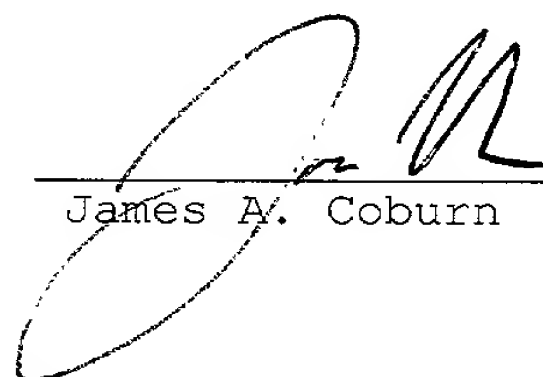
States Code and that such willful false statements may jeopardize the validity of the application or any patent resulting therefrom.

Respectfully submitted,

Feb. 22, 2001
_____
Date

_____
James A. Coburn

**HARBOR CONSULTING**
Intellectual Property Services
1500A Lafayette Road
Suite 262
Portsmouth, N.H.
800-318-3021

SEQUENCE LISTING

<110> DODO, HORTENSE W.
ARNTZEN, CHARLES J.
KONAN, KOFFI N'DA
VIQUEZ, OLGA

<120> DOWN-REGULATION AND SILENCING OF ALLERGEN GENES IN
TRANSGENIC PEANUT SEEDS

<130> 072121/0104

<140> 09/715,036
<141> 2000-11-20

<150> 60/167,255
<151> 1999-11-19

<160> 8

<170> PatentIn Ver. 2.1

<210> 1
<211> 1162
<212> DNA
<213> Arachis hypogaea

<220>
<221> CDS
<222> (110)..(730)

<400> 1
tccttacgcg aaatacgggc agacatggcc tgcccggtta ttattatttt tgacacagac 60

caactggtaa tggtagcgac cggcgctcag ctggaattcg cggccgcca atg gcc aag 118
                                                         Met Ala Lys
                                                          1

ctc acc ata cta gta gcc ctc gcc ctt ttc ctc ctc gct gcc cac gca 166
Leu Thr Ile Leu Val Ala Leu Ala Leu Phe Leu Leu Ala Ala His Ala
      5                  10                  15

tct gcg agg cag cag tgg gaa ctc caa gga gac aga aga tgc cag agc 214
Ser Ala Arg Gln Gln Trp Glu Leu Gln Gly Asp Arg Arg Cys Gln Ser
 20                  25                  30                  35

cag ctc gag agg gcg aac ctg agg ccc tgc gag caa cat ctc atg cag 262
Gln Leu Glu Arg Ala Asn Leu Arg Pro Cys Glu Gln His Leu Met Gln
              40                  45                  50

aag atc caa cgt gac gag gat tca tat gaa cgg gac ccg tac agc cct 310
Lys Ile Gln Arg Asp Glu Asp Ser Tyr Glu Arg Asp Pro Tyr Ser Pro
              55                  60                  65

agt cag gat ccg tac agc cct agt cca tat gat cgg aga ggc gct gga 358
Ser Gln Asp Pro Tyr Ser Pro Ser Pro Tyr Asp Arg Arg Gly Ala Gly
          70                  75                  80

```
tcc tct cag cac caa gag agg tgt tgc aat gag ctg aac gag ttt gag    406
Ser Ser Gln His Gln Glu Arg Cys Cys Asn Glu Leu Asn Glu Phe Glu
        85              90              95

aac aac caa agg tgc atg tgc gag gca ttg caa cag atc atg gag aac    454
Asn Asn Gln Arg Cys Met Cys Glu Ala Leu Gln Gln Ile Met Glu Asn
100             105             110             115

cag agc gat agg ttg cag ggg agg caa cag gag caa cag ttc aag agg    502
Gln Ser Asp Arg Leu Gln Gly Arg Gln Gln Glu Gln Gln Phe Lys Arg
                120             125             130

gag ctc agg aac ttg cct caa cag tgc ggc ctt agg gca cca cag cgt    550
Glu Leu Arg Asn Leu Pro Gln Gln Cys Gly Leu Arg Ala Pro Gln Arg
            135             140             145

tgc gac ttg gac gtc gaa agt ggc ggc agg cgg ccg cga att ccg ccg    598
Cys Asp Leu Asp Val Glu Ser Gly Gly Arg Arg Pro Arg Ile Pro Pro
        150             155             160

ata ctg acg ggc tcc agg agt cgt cgc cac caa tcc cca tat gga aac    646
Ile Leu Thr Gly Ser Arg Ser Arg Arg His Gln Ser Pro Tyr Gly Asn
        165             170             175

cgt cga tat tca gcc atg tgc ctt ctt ccg cgt gca gca gat ggc gat    694
Arg Arg Tyr Ser Ala Met Cys Leu Leu Pro Arg Ala Ala Asp Gly Asp
180             185             190             195

ggc tgg ttt cca tca gtt gct gtt gac tgt agc ggc tgatgttgaa         740
Gly Trp Phe Pro Ser Val Ala Val Asp Cys Ser Gly
                200             205

ctggaagtcg ccgcgccact ggtgtgggcc ataattcaat tcgcgcgtcc cgcagcgcag  800

accgttttcg ctcgggaaga cgtacggggt atacatgtct gacaatggca gatcccagcg  860

gtcaaaacag gcggcagtaa ggcggtcggg atagttttct tgcggcccta atccgagcca  920

gtttacccgc tctgctacct gcgccagctg cagttcaag ccaatccgcg ccggatgcgg  980

tgtatcgctc gccacttcaa catcaacggt aatcgccatt gaccactac catcaatccg 1040

gtaggttttc cggctgataa ataaaggttt tcccctgatg ctgccacgcg tgagcggtcg 1100

taatcagcac cgcatcaaca agtgtatttt gccgtgcact gcaacaacgc tggttcgggc 1160

tg                                                               1162


<210> 2
<211> 207
<212> PRT
<213> Arachis hypogaea

<400> 2
Met Ala Lys Leu Thr Ile Leu Val Ala Leu Ala Leu Phe Leu Leu Ala
 1               5               10              15
```

```
Ala His Ala Ser Ala Arg Gln Gln Trp Glu Leu Gln Gly Asp Arg Arg
            20                  25                  30

Cys Gln Ser Gln Leu Glu Arg Ala Asn Leu Arg Pro Cys Glu Gln His
            35                  40                  45

Leu Met Gln Lys Ile Gln Arg Asp Glu Asp Ser Tyr Glu Arg Asp Pro
        50                  55                  60

Tyr Ser Pro Ser Gln Asp Pro Tyr Ser Pro Ser Pro Tyr Asp Arg Arg
65                  70                  75                  80

Gly Ala Gly Ser Ser Gln His Gln Glu Arg Cys Cys Asn Glu Leu Asn
                85                  90                  95

Glu Phe Glu Asn Asn Gln Arg Cys Met Cys Glu Ala Leu Gln Gln Ile
            100                 105                 110

Met Glu Asn Gln Ser Asp Arg Leu Gln Gly Arg Gln Gln Glu Gln Gln
        115                 120                 125

Phe Lys Arg Glu Leu Arg Asn Leu Pro Gln Gln Cys Gly Leu Arg Ala
    130                 135                 140

Pro Gln Arg Cys Asp Leu Asp Val Glu Ser Gly Gly Arg Arg Pro Arg
145                 150                 155                 160

Ile Pro Pro Ile Leu Thr Gly Ser Arg Ser Arg Arg His Gln Ser Pro
            165                 170                 175

Tyr Gly Asn Arg Arg Tyr Ser Ala Met Cys Leu Leu Pro Arg Ala Ala
            180                 185                 190

Asp Gly Asp Gly Trp Phe Pro Ser Val Ala Val Asp Cys Ser Gly
            195                 200                 205
```

<210> 3
<211> 682
<212> DNA
<213> Arachis hypogaea

<400> 3

```
gacacagacc aactggtaat ggtagcgacc ggcgctcagc tggaattcgc ggccgccaat   60
ggccaagctc accatactag tagccctcgc ccttttcctc ctcgctgccc acgcatctgc  120
gaggcagcag tgggaactcc aaggagacag aagatgccag agccagctcg agagggcgaa  180
cctgaggccc tgcgagcaac atctcatgca gaagatccaa cgtgacgagg attcatatga  240
acgggacccg tacagcccta gtcaggatcc gtacagccct agtccatatg atcggagagg  300
cgctggatcc tctcagcacc aagagaggtg ttgcaatgag ctgaacgagt ttgagaacaa  360
ccaaaggtgc atgtgcgagg cattgcaaca gatcatggag aaccagagcg ataggttgca  420
ggggaggcaa caggagcaac agttcaagag ggagctcagg aacttgcctc aacagtgcgg  480
ccttagggca ccacagcgtt gcgacttgga cgtcgaaagt ggcggcaggc ggccgcgaat  540
tccgccgata ctgacgggct ccaggagtcg tcgccaccaa tccccatatg gaaaccgtcg  600
atattcagcc atgtgccttc ttccgcgtgc agcagatggc gatggctggt ttccatcagt  660
tgctgttgac tgtagcggct ga                                            682
```

<210> 4
<211> 1853
<212> DNA
<213> Arachis hypogaea

<400> 4
```
atggctaagc ttcttgagct ttcttttgc ttttgctttc tagttctggg agctagcagc 60
atctccttca ggcagcagcc ggaggagaat gcgtgccagt tccagcgcct caatgcgcag 120
agacctgaca accgcattga atcggagggc ggttacattg agacttggaa ccccaacaac 180
caggagttcg aatgcgccgg cgtcgccctc tctcgcttag tcctccgccg caacgccctt 240
cgtaggcctt tctactccaa tgctccccag gagatcttca tccagcaagg aaggggatac 300
tttgggttga tattccctgg ttgtcctagc acatatgaag agcctgcaca acaaggacgc 360
cgatatcagt cccaaagacc accaagacgt ttgcaagaag aagaccaaag ccaacagcaa 420
caagatagtc accagaaggt gcaccgtttc aatgagggtg atctcattgc agttcccacc 480
ggtgttgctt tctggctgta caacgaccac gacactgatg ttgttgctgt ttctcttact 540
gacaccaaca acaacgacaa ccagcttgat cagttcccca ggagattcaa tttggctggg 600
aaccacgagc aagagttctt aaggtaccag caacaaagca gacaaagcag acgaagaagc 660
ttaccatata gcccatacag cccgcatagt cggcctagac gagaagagcg tgaatttcgc 720
cctcgaggac agcacagccg cagagaacga gcaggacaag aagaagaaga cgaaggtgga 780
aacatcttca gcggcttcac gccggagttc ctggaacaag ccttccaggt tgacgacaga 840
cagattgtgc aaaatctgtg gggcgagaac gagagtgaag aagagggagc cattgtgacg 900
gtgaggggag gcctcagaat cttgagccca gatggaacga gaggtgccga cgaagaagag 960
gaatacgatg aagatcaata tgaataccat gaacaggatg gaaggcgtgg caggggaagc 1020
agaggcgggg ggaatggtat tgaagagacg atctgcaccg catgtgttaa aaagaacatt 1080
ggtggaaaca gatcccctca catctacgat cctcagcgct ggttcactca aaactgccac 1140
gatctcaacc ttctaatcct taggtggctt ggacttagtg ctgaatatgg aaatctctac 1200
aggaatgcat tgtttgtccc tcactacaac accaacgcac acagcatcat atatgcattg 1260
aggggacggg ctcacgtgca agtggtggac agcaacggca acagagtgta cgacgaggag 1320
cttcaagagg gtcacgttct tgtggtgcca cagaacttcg ccgtggctgg gaagtcccag 1380
agcgagaact tcgaatacgt ggcattcaag acagattcaa ggcccagcat agccaacttt 1440
gccggtgaaa actccttcat agataacctg ccggaggagg tggttgcaaa ttcatatggc 1500
ctcccaaggg agcaggcaag gcagcttaag aacaacaacc ccttcaagtt cttcgttcca 1560
ccttttcagc agtctccgag ggctgtggct taaaaacgac cagtatcttt tgcaagcgtg 1620
ttatccacta acataacttt ttgccacaaa tgaataatat aataataaga agaataatgt 1680
agttttaatt tttagtatga ataagaatac aaagggggcat tgatgcctttt ttgtttaaga 1740
tcggaatgta acatatgtgc aatgagcaga tatggagaaa accttttgcg ggaaaaacat 1800
gaataataaa agaagttatg gtctcacgca aaaaaaaaa aaaaaaaaa aaa    1853
```

<210> 5
<211> 2032
<212> DNA
<213> Arachis hypogaea

<400> 5
```
aataatcata tatattcatc aatcatctat ataagtagta gcaggagcaa tgagagggag 60
ggtttctcca ctgatgctgt tgctagggat ccttgtcctg gcttcagttt ctgcaacgca 120
tgccaagtca tcaccttacc agaagaaaac agagaacccc tgcgcccaga ggtgcctcca 180
gagttgtcaa caggaaccgg atgacttgaa gcaaaaggca tgcgagtctc gctgcaccaa 240
gctcgagtat gatcctcgtt gtgtctatga tcctcgagga cacactggca ccaccaacca 300
acgttcccct ccaggggagc ggacacgtgg ccgccaaccc ggagactacg atgatgaccg 360
ccgtcaaccc cgaagagagg aaggaggccg atggggacca gctggaccga gggagcgtga 420
aagagaagaa gactggagac aaccaagaga agattggagg cgaccaagtc atcagcagcc 480
acggaaaata aggcccgaag gaagagaagg agaacaagag tggggaacac caggtagcca 540
tgtgagggaa gaaacatctc ggaacaaccc tttctacttc ccgtcaaggc ggtttagcac 600
ccgctacggg aaccaaaacg gtaggatccg ggtcctgcag aggtttgacc aaaggtcaag 660
gcagtttcag aatctccaga atcaccgtat tgtgcagatc gaggccaaac ctaacactct 720
tgttcttccc aagcacgctg atgctgataa catccttgtt atccagcaag ggcaagccac 780
```

```
cgtgaccgta gcaaatggca ataacagaaa gagctttaat cttgacgagg gccatgcact 840
cagaatccca tccggtttca tttcctacat cttgaaccgc catgacaacc agaacctcag 900
agtagctaaa atctccatgc ccgttaacac acccggccag tttgaggatt tcttcccggc 960
gagcagccga gaccaatcat cctacttgca gggcttcagc aggaatacgt tggaggccgc 1020
cttcaatgcg gaattcaatg agatacggag ggtgctgtta gaagagaatg caggaggtga 1080
gcaagaggag agagggcaga ggcgatggag tactcggagt agtgagaaca atgaaggagt 1140
gatagtcaaa gtgtcaaagg agcacgttga agaacttact aagcacgcta aatccgtctc 1200
aaagaaaggc tccgaagaag agggagatat caccaaccca atcaacttga gagaaggcga 1260
gcccgatctt tctaacaact ttgggaagtt atttgaggtg aagccagaca agaagaaccc 1320
ccagcttcag gacctggaca tgatgctcac ctgtgtagag atcaaagaag gagctttgat 1380
gctcccacac ttcaactcaa aggccatggt tatcgtcgtc gtcaacaaag gaactggaaa 1440
ccttgaactc gtggctgtaa gaaaagagca acaacagagg ggacggcggg aagaagagga 1500
ggacgaagac gaagaagagg agggaagtaa cagagaggtg cgtaggtaca cagcgaggtt 1560
gaaggaaggc gatgtgttca tcatgccagc agctcatcca gtagccatca acgcttcctc 1620
cgaactccat ctgcttggct tcggtatcaa cgctgaaaac aaccacagaa tcttccttgc 1680
aggtgataag gacaatgtga tagaccagat agagaagcaa gcgaaggatt tagcattccc 1740
tgggtcgggt gaacaagttg agaagctcat caaaaaccag aaggaatctc actttgtgag 1800
tgctcgtcct caatctcaat ctcaatctcc gtcgtctcct gagaaagagt ctcctgagaa 1860
agaggatcaa gaggaggaaa accaaggagg gaagggtcca ctcctttcaa ttttgaaggc 1920
ttttaactga gaatggaggc aacttgttat gtatcgataa taagatcacg cttttgtact 1980
ctactatcca aaaacttatc aataaataaa aacgtttgtg cgttgtttct cc          2032
```

<210> 6
<211> 743
<212> DNA
<213> Arachis hypogaea

<400> 6
```
agaaagagaa gacaagatgt cgtggcaaac ctacgtcgat aaccaccttc tctgcgaaat 60
tgaaggcgac cacctctcct ccgccgcaat cctcggccaa gacggcggtg tttgggctca 120
gagctctcat ttccctcagt tcaagcctga ggaaattact gctatcatga cgactttgc 180
tgagcctgga tcgctcgccc ctaccgggtt gtacctcggt ggcaccaaat acatggttat 240
ccaaggtgaa cccggagcta tcattccagg gaagaagggt cctggtggtg ttaccattga 300
gaagacgaat caggcgttaa tcatcggaat ctacgataag ccaatgactc cggggcagtg 360
caacatgatt gttgaaaggc tgggtgatta tctcattgat acgggtcttt aagtcctctt 420
tgttatttct tgttatctgc ttgcttattt cactggctcc tatacgaggc ttcgcatcga 480
tgtgccaaga gaatgctcga ttgtagtgta ataatattaa ttgatgggta ttcaaaagtc 540
atgggatctg cgtctaggga agaagttatg gtgcttgaga agtgaatgat aactatcatc 600
tctgttgttg tgcttttag cgggtatctg tatacaattt acaagtggtt ttaatgctgt 660
gggcataaat gggcattaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 720
aaaaaaaaaa aaaaaaaaaa aaa                                         743
```

<210> 7
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Probe

<400> 7
```
ctagtagccc tcgccctttt cctcctcgct gcccacgcat ctgcgaggca gcagtgggaa 60
ctccaaggag acagaagatg                                             80
```

<210> 8
<211> 62
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Probe

<400> 8
gtgcatgtgc gaggcattgc aacagatcat ggagaaccag agcgataggt tgcaggggag 60
gc                                                              62